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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/798,889

03/12/2004

Masayuki Takahashi

040113

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23850

7590

05/04/2007

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EXAMINER

OMGBA, ESSAMA

ART UNIT

PAPER NUMBER

3726

MAIL DATE

DELIVERY MODE

05/04/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

HT

<b>Office Action Summary</b>	Application No. 10/798,889	Applicant(s) TAKAHASHI ET AL.	
	Examiner Essama Omgba	Art Unit 3726	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 February 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) 6 and 7 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
       Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
       Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admitted Prior Art (AAPA) in view of Horn (US Patent 4,660,266).

With regards to claims 1, 5 and 6, Applicant, at pages 1-3 of the specification to be known as AAPA, discloses a bearing manufacturing method for manufacturing a bearing member having a body part formed of a first material of an aluminum alloy, and a bearing part formed of a second material of an aluminum alloy having a high silicon content, the bearing part having a bearing surface of a semicircular cross section and integrally combined with the body part, wherein the bearing member is manufactured as a half cylinder in a mold. AAPA does not disclose forming the bearing member by casting a primary cylindrical workpiece in a mold and dividing the primary workpiece into halves along a center line to obtain two substantially equivalent secondary workpieces for forming two equivalent bearing members. However it is known to form two substantially equivalent bearing members by casting a primary cylindrical workpiece in a mold and dividing the primary workpiece along a center plane including a center axis of the primary workpiece to obtain two substantially equivalent bearing members as attested by Horn, see column 1, lines 12-18 and 34-44 and column 2, lines 24-25.

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made, to have manufactured the bearing members of AAPA from a cylindrical primary workpiece that is subsequently divided along a center plane, in light of the teachings of Horn, in order to increase production of the bearing members.

For claim 2, Applicant should note that such casting step is conventional in the art.

For claim 3, Applicant should note that the shape of the semi-finished workpiece lends no patentable weight to the method being claimed.

3. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over AAPA as applied to claim 3 above, and further in view of Beyer-Steinhauer et al. (DE 19959540).

AAPA/Horn discloses a bearing manufacturing method as shown above.

Although AAPA/Horn does not disclose the molten first material being poured into the cavity so as to flow in a swirling current in the cavity, however it is known to pour molten material in mold cavity in a swirling current so as to promote uniform flow of the molten material inside the mold as attested by Beyer-Steinhauer et al., see abstract. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made, to have poured the metal in the method of AAPA/Horn so that as to flow in a swirling current in the mold cavity, in light of the teachings of Beyer-Steinhauer et al., in order to promote uniform flow of the molten material inside the mold.

### ***Response to Arguments***

4. Applicant's arguments with respect to claims 1-5 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Essama Omgba whose telephone number is (571) 272-4532. The examiner can normally be reached on M-F 9-6:30, 1st Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bryant can be reached on (571) 272-4526. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Art Unit: 3726

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A handwritten signature in black ink, appearing to read 'Essama Omgba', written in a cursive style.

Essama Omgba  
Primary Examiner  
Art Unit 3726

eo  
April 28, 2007